

High-Level Gentamicin Resistant Enterococci and Quinupristin/Dalfopristin Resistant *E. faecium* from Ground Pork Purchased from Grocery Stores

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Background: Gentamicin and virginiamycin (an analog of quinupristin/dalfopristin) are commonly administered to pigs for treatment of infections and growth promotion, respectively. Such uses select for resistant enterococci in the intestinal tracts of pigs that may be transferred to humans through the food supply. Gentamicin and quinupristin/dalfopristin are commonly used for treatment of enterococcal infections in humans.

Methods: From July 1999 to June 2000, 10 packages of ground pork were purchased each month from grocery stores in Georgia, Maryland, Michigan, Minnesota, and Oregon. After screening for enterococci, one isolate per sample was sent to CDC for speciation and partial range MIC determination against gentamicin and quinupristin/dalfopristin using broth microdilution (Sensititre).

Results: Enterococci were isolated from 569 (99%) of 576 ground pork packages. Fifty-two (12%) of the enterococci isolates have been speciated; 42 (78%) were *E. faecalis*, 8 (15%) were *E. faecium*, and 2 (4%) were *E. gallinarum*. Four hundred twenty-four of the enterococci isolates (74%) have been susceptibility tested; 18 (4%) isolates had high-level (MIC >500) gentamicin resistance. Resistant enterococci were isolated from pork from all states. Seven (87%) of 8 *E. faecium* isolates were resistant to quinupristin/dalfopristin (MIC >4).

Conclusion: High-level gentamicin resistant enterococci and quinupristin/dalfopristin resistant *E. faecium* were isolated from ground pork purchased from grocery stores. Swine represent a potential reservoir of clinically important resistant determinants to which humans may be regularly exposed.

Suggested citation:

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